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REMARKS

This application has been carefully reviewed in light of the office action mailed February 28, 2003. Claims 19-37 are pending in this application. Applicants respectfully request early and favorable acceptance of this application.

Rejections under 35 U.S.C. § 102

Claims 19-37 are rejected under 35 U.S.C. § 102(a) as being anticipated by Kim, U.S. Patent No. 6,162,664. Applicants respectfully traverse the rejection.

The Kim reference discloses an integrated circuit package having leads formed with a plated copper base layer 40, a nickel-gold or tin-lead metal bonding layer 60 and a solder layer 50. Solder layer 50 is disclosed in column 4, lines 33-37 as having a composition of tin and lead in a 90:10 ratio.

Claim 19

Claim 19, as modified, recites a method of making an integrated circuit (e.g., 50) that includes plating a conductive material to project outwardly from a surface (e.g., 52) of a substrate (e.g., 12) to form a lead-free lead (e.g., 26) of the integrated circuit. Support for the amended language can be found at least in paragraph [0022] on page 7, lines 20-24 of the specification.

The reference does not disclose plating a conductive material to form a lead-free lead. All of the Kim leads are formed with tin-lead solder balls, and some of the leads have a tin-lead plated bonding layer. There is no indication in the reference that lead-free leads or a lead-free package is

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desirable or even possible. Hence, the claimed package avoids the environmental damage produced by the solder balls used in the Kim package. In addition, the solder balls cause the Kim package to have a higher cost and its leads to have a more variable height, which increases package stress and degrades reliability, as explained in paragraph [0017] on page 6, lines 6-18 of the specification.

Therefore, Applicants believe amended claim 19 is not anticipated by the Kim reference. Claims 20-31 depend directly or indirectly from allowable base claim 19 and are allowable for at least the same reasons.

Claims 32 and 36

Claims 32 and 36, as amended, each call for lead-free leads. Hence, for reasons similar to those discussed above, claims 32 and 36 therefore should be allowable. Claims 33-35, which depend from allowable base claim 32, and claim 37, which depends from allowable base claim 36 are allowable as well.

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CONCLUSION

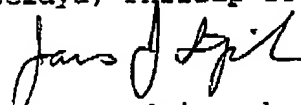
In light of the foregoing, Applicants believe this case is in condition for allowance. Applicants respectfully request reconsideration and allowance of claims 19-37.

Applicants have reviewed the prior art made of record and believe it does not affect the patentability of the claimed invention.

A fee of \$110.00 is believed due pursuant to rule 1.17(a)(1) for a one month extension of time. Accordingly, a petition for a one month extension of time to respond under rule 1.136(a) is being submitted concurrently with this amendment. The Commissioner is hereby authorized to charge any fees or credit any overpayment to Deposit Account 501086.

If there are matters which can be discussed by telephone to further the prosecution of this application, applicants invite the examiner to call the undersigned attorney at the examiner's convenience.

Respectfully submitted,
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